

## **REMARKS**

### **I. Current Status of the Application**

Claims 1 and 4 are currently pending in the present application. Claims 1 and 4 are independent and have been amended. Support for these amendments may be found in at least paragraphs [0037] – [0043] and [0066] and in FIG. 2A of the application as published. No new matter has been added. Additionally, claims 2, 5, 7, and 8 have been canceled without waiver of the subject matter thereof.

Claims 4, 5, and 8 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Further, claims 1, 2, 4, 5, 7, and 8 stand rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

Claims 1, 2, 4, 5, 7, and 8 also stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2002/0152256 (“Wetzel”) in view of U.S. Patent No. 6,961,934 (“Alford”) and U.S. Patent No. 6,061,709 (“Bronte”).

The Office Action has not raised any issues with the drawings or the specification.

The Applicant respectfully requests reconsideration of these rejections in view of the following remarks.

### **II. Remarks Regarding the § 101 Rejection**

The Office Action first rejects claim 4 for allegedly being directed to non-statutory subject matter. Claim 4 has been amended to recite “non-transitory computer-readable medium.” In light of this amendment, the Applicant respectfully requests withdrawal of the § 101 rejection of claim 4.

### **III. Remarks Regarding the § 112, ¶ 2 Rejections**

Next, the Office Action rejects claims 1 and 4 under § 112, second paragraph, for allegedly being indefinite. The Office Action indicates five specific issues with each of claims 1 and 4. We address each of these issues in turn.

First, the Office Action indicates that it is unclear whether claim 1 is claiming a system or a medium. As indicated in the claim's preamble, a task management *system* is being claimed. Although this system is stored (at least in part) on a non-transitory computer-readable medium (such as a CD, hard disk, etc.), a *system* is being claimed. The system also includes several processing units, which may be a processor or CPU for example. If, in light of this statement, claim 1 is still felt to be indefinite, the Applicant invites the Examiner to recommend how to recite that a system is being claimed.

Second, the Office Action alleges that it is uncertain how the task combinations are stored in the task management table (*i.e.* how the table relates to the specified tasks). The task management table is described in paragraphs [0037] – [0043] of the published application. Further, an example is shown in FIG. 2A of the present application. Because claims are not to be read in a vacuum, but rather are to be interpreted in light of the specification, one skilled in the art would understand the relationship between the task management table and the tasks contained therein. Specifically, the task management table contains, at a minimum, unique identifiers for each task stored therein. In order to advance prosecution, however, claims 1 and 4 have been amended to recite that the task management table associates an identifier for each task contained therein as well as whether a task is “flagged” (explained further below).

Third, the Office Action asserts that it is uncertain which tasks are being specified for completion. Again, the specification is instructive. As detailed in paragraph [0039] of the application as published, the task being specified for completion (*i.e.* the “flagged task”) is a task that has been flagged in the task management table as such. In other words, the task management table, in addition to storing a unique ID for each task, also indicates whether each task is flagged or not. A task that is flagged indicates that it must finish execution prior to switching over to a new task combination. Tasks that are not flagged do not need to complete execution prior to switchover. One of skill in the art would select which tasks to flag based on the particulars of the system. In order to clarify this point, claims 1 and 4 have been amended to

recite that the flagged task is a task that has been flagged in the task management table.

Fourth, the Office Action contends that it is unclear when exactly “beforehand” the table is generated. As discussed in paragraph [0043] of the application as published, the task management table is generated for every application prior to execution of any tasks. This allows smooth switchover between task combinations because a determination of whether a task can be done is not performed each time a task is registered. Accordingly, claims 1 and 4 have been amended to recite what the system will do after the judgment step of determining whether a flagged task exists among the not-yet-executed tasks. In addition, the claims now recite that the task management table is generated before the tasks of the present task combination are executed.

Fifth, the Office Action alleges that it is uncertain what is done after the judging step. In response, the Applicant has amended claims 1 and 4 to specify the various tasks that occur after the judging step. Further, the claims specify the various ways in which the judging unit determines when a task switchover request is being made, such as by comparing pattern numbers associated with each task combination. Thus, the judging unit serves the important role of determining when a switchover request is made. Otherwise, the switching unit would not have an indication of when to switch from the present task to a requested task.

The above remarks and amendments should overcome the § 112, second paragraph rejections of claims 1 and 4. Accordingly, the Applicant respectfully requests withdrawal of the § 112, second paragraph rejections of the claims.

#### **IV. Remarks Regarding the § 103 Rejection**

Finally, the Office Action rejects claims 1 and 4 under § 103 35 U.S.C. § 103(a) as allegedly being unpatentable over Wetzel in view of Alford and Bronte.

The Applicant respectfully submits that claim 1 is patentable over the cited references at least because it recites, in part, “*when it is judged that the flagged task exists in the not-yet-executed task, the processing unit is adapted to continue executing the task in the current task*, and when it is judged that the flagged task does not exist in the not-yet-executed task, the switchover unit is adapted to switch over from the present task combination to the requested task

combination” (emphasis added).

The Applicant respectfully submits that claim 4 is patentable over the cited references at least because it recites, in part, “*when it is judged that the flagged task exists in the not-yet-executed task, executing the task in the current task*; when it is judged that the flagged task does not exist in the not-yet-executed task, switching over from the present task combination to the requested task combination” (emphasis added).

Each of Wetzel, Alford, and Bronte (both individually and in combination) fail to teach a task management system that waits until any tasks in a present task combination labeled as “flagged” in a task management table have finished executing prior to switching to a requested task combination, as recited by claims 1 and 4 of the present application. Nevertheless, the Office Action asserts that the combination of Wetzel, Alford, and Bronte renders claims 1 and 4 of the present application unpatentable.

One example of a system in accordance with claim 1 of the present application includes several task combinations each made up of one or more tasks among a group of tasks, a judging unit, a switchover unit, and a processing unit (*e.g.*, a processor or CPU). The task management system of this example determines how switchover should occur when a request is received to execute a new task combination when the processor is already in the middle of executing another task combination. Instead of waiting for every task in the current combination to execute, the task management system in this example only waits for the execution of those tasks that are “flagged.”

For example, suppose that the processing unit is currently executing a task combination A, consisting of tasks 1, 2, and 3, with task 2 being flagged in the task management table. Prior to completing execution of the tasks in A, a request is made to switch to a task combination B, consisting of tasks 4 and 5. Prior to executing the tasks in B, the system will wait for task 2 (the flagged task) to finish executing. Once task 2 finishes executing, the processing unit will begin executing combination B, regardless of whether tasks 1 and 3 have finished executing.

Wetzel, on the other hand, merely discloses a method for reconstructing a sequence of processes. The Wetzel method involves determining the order with which tasks are to be completed. Wetzel is silent on flagging certain tasks for completion prior to executing a task combination switchover. While a task combination switchover request in the system recited by

claim 1 of the present application may interrupt various tasks before they finish executing, the Wetzel method merely establishes an order in which tasks are assigned for execution. Thus, Wetzel fails to teach the flagging of certain tasks as requiring complete execution prior to switching to a new task combination.

Further, Alford does not make up for this deficiency. The thread environment disclosed in Alford fails to teach the waiting for a flagged task to completely execute before switching to a requested task combination, as recited by claims 1 and 4 of the present application.

Similarly, Bronte also fails to make up for the shortcomings of Wetzel and Alford. The relevant portions of Bronte (contained within the patent's background section), describe a system having four execution spaces: high priority queue, high priority interrupt, low priority queue, and low priority interrupt. When a high priority interrupt occurs, the system scheduler "can only put the task or thread at the end of the high priority queue." (Bronte at col. 3, ll. 8 – 11.) Thus, Bronte fails to teach waiting for all tasks that are labeled as "flagged" in a task management table to complete execution before switching to a new task combination. Rather, Bronte at best teaches scheduling various tasks for execution in an order determined by which execution space they are assigned to.

Thus, the system and method recited by claims 1 and 4 of the present application are distinct from the combined Wetzel/Alford/Bronte (WAB) system. While a system and method in accordance with claims 1 and 4 waits for all tasks labeled as "flagged" in a task management table to finish executing before switching to a requested task combination, the WAB system merely assigns and manages an order of tasks to be executed.

For at least these reasons, the cited references fail to teach every feature of the present application's independent claims. Specifically, each of Wetzel, Alford, and Bronte (both individually and in combination) fail to teach a task management system that waits until any tasks in a present task combination labeled as "flagged" in a task management table have finished executing prior to switching to a requested task combination, as recited by claims 1 and 4 of the present application. Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection of claims 1 and 4.

**CONCLUSION**

In light of the above remarks, the Applicant respectfully submits that the present application is in condition for allowance. The Applicant earnestly solicits favorable reconsideration and issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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